REMARKS

In response to the Office action mailed July 3, 2007, Applicant respectfully request consideration. For the reasons set forth below, the application as presented is believed to be in allowable condition.

Claims 1-9 are amended herein. No claims are canceled and no new claims have been added. Accordingly, as a result of this amendment, claims 1-9 stand pending, of which claims 1 and 7 are in independent form.

Each of claims 1-9 has been amended to overcome the Examiner's informality objections and to further clarify the claimed invention and thereby more clearly distinguish over US Patent no. 5,513,324 to Robert A. Dolin, Jr. et al (hereinafter "Dolin"). No new matter has been added as a result of these amendments.

Claim Objections

Claims1-9 were objected to by the Examiner for containing several informalities. Applicant has amended the claims to address each objection made by the Examiner and remove all references to the specification e.g., "(C)," "($X_1 \ldots X_J$)," etc. Accordingly, withdrawal of the objections to claims 1-9 is respectfully requested.

Claim Rejections Under 35 U.S.C. §112, Second Paragraph

Claim 6 was rejected under 35 U.S.C. §112, second paragraph, based upon the expression "is likely to transmit." Claim 6 has been amended to change this recitation to "is capable of transmitting" to overcome this rejection. Accordingly, withdrawal of the rejection of claim 6 under 35 U.S.C. §112, second paragraph, is respectfully requested.

Rejection of Claims Under 35 U.S.C. §102

The Office Action rejected claims 1-9 under 35 U.S.C. §102(b) as being anticipated by Dolin. Applicant respectfully traverses this rejection.

The Disclosure of Dolin

Dolin is directed to a system for the communication of information between devices in a distributed computing environment. (Col. 1, lines 12-15.) Dolin discloses sender nodes and

receiver nodes. (Col. 1, lines 24-25; Col. 8, lines 60-63; Figs. 1-3.) During configuration of the network, a communication connection between a first node and a second node is defined and during later communication of message packets, addressing of message packets between the various nodes is accomplished through use of address tables 901, 902 based on the definition of such connections. (Col. 4, lines 54-59.) Whenever messages are sent on the network by a sender node indicating the value of a variable has been updated, the address table index 912 is used to lookup the address of the destination node of such a message in address table 901. (Col. 13, lines 39-57.) Only the output network variable nodes actually set their network variable table entries to index the address table; the nodes with input network variables will not index the address table 901. (Col. 14, lines 20-23.) Further, the same variable may be updated by several nodes or groups of nodes. (Col 14, lines 32-33.) A network variable declared as output will result in transmission of the new value of the network variable on the network when the program stores the variable. For example, each time a process running on temperature sensor 115 stores the variable temp.sub.-- high, a network message is generated communicating the new value of temp.sub.-- high. The message is communicated to all reader nodes connected in connection.sub.-- 1 141, i.e., to control cell 101. (Col. 8, lines 7-16.) At any time, a reader node may force an update of its input network variables utilizing a polling function of the present invention. When this function is called, the specified network variables are updated by requesting over the network the current value from the writer node or nodes. (Col. 8, lines 43-46.)

Applicant's Claimed Invention

Embodiments of Applicant's invention are directed to a method and system for data exchange between devices on a network. Each device includes a memory divided into portions, each memory portion being associated with an address and one of a transmission flag or a reception flag. (pg. 6, line 30 – pg. 7, line 18.) Only one device of the plurality of devices includes a transmission flag for a given address. (pg. 7, lines 18-20.) Each device contains a processing unit which is able to read or modify a data packet stored in a memory portion and a communication circuit. (pg. 6, lines 18-29.) As described in Applicant's specification, a master device periodically transmits addresses to all the devices through the network. (pg. 8, lines 10-

22.) Upon reception of an address for which the device has a transmission flag associated with the address, the communication circuit of the device sends on the network the data packet stored in the associated memory portion, and sends to its respective processing unit an identifier of the address. (pg. 8, line 26 – pg. 9, line 2.) Upon reception of an address for which the device has a reception flag associated with the address, the communication circuit stores in the associated memory portion the data packet received from the network and sends to the processing unit an identifier of the address. (pg. 9, lines 3-13.)

Dolin fails to disclose a method for exchanging information frames over a network including a master node and other nodes that transmit or write into memory an information frame in response to the transmission of an address by the master node as recited in claim 1. Dolin also fails to disclose network devices which are capable of transmitting to a processing unit an identifier of the register associated with an address of an information frame which has been read or written to as recited in claim 7. Further, Dolin fails to disclose a network or a method of communicating to devices on a network without the need for pre-defined connections between transmitting and receiving devices embodied in network variable tables and associated network address tables.

Claims 1-9 Patently Distinguish Over Dolin

As amended, claim 1 is directed to a method for exchanging information frames over a network between a plurality of devices. Each device of the plurality of devices comprises a communication circuit connected to a processing unit and also comprises a plurality of addresses. Each address is associated with one of a transmission indicator or a reception indicator. Each address is associated with a memory containing an information frame that can be at least one of modified and read by the processing unit. Only a single device of the plurality of devices includes one of the plurality of addresses that is associated with the transmission indicator.

The method comprises the steps of having a master device periodically transmit an address of the plurality of addresses, and responsive to transmission of the address by the master device, having the communication circuit of the device for which the address transmitted by the master device is associated with the transmission indicator transmit the information frame contained in the memory associated with the address and provide its processing unit with an

identifier of the address, and having the communication circuit of each device for which the address transmitted by the master device is associated with the reception indicator write into the memory associated with the address the information frame and provide its processing unit with an identifier of the address.

Claim 1 patently distinguishes over Dolin in a number of ways. First, as amended, claim 1 recites a master device. Nowhere does Dolin disclose, teach, or suggest any node that can be considered master device. The section cited by the Examiner to support the proposition that Dolin discloses a master device simply reads, in pertinent part: "messages are built by a sender node and sent to one or more receiver nodes" (Col. 1, lines 24-25) which in no way implies the existence of a master and non-master devices.

Second, claim 1 is directed to a communication method wherein the combination of an address sent by the master device and the presence of that address and one of a transmission or reception indicator determines that action be taken by the device. Claim 1 recites having the communication circuit of the device for which the address transmitted by the master device is associated with the transmission indicator transmit the information frame contained in the memory associated with the address and having the communication circuit of each device for which the address transmitted by the master device is associated with the reception indicator write into the memory associated with the address the information frame **responsive to transmission of an address by the master device**. In contrast, Dolin discloses device nodes that may transmit values of network variable in response to external signals such as a change in temperature (Col. 8, lines 7-20), or at **any time** to force an update of its input network variables (Col. 8, lines 42-46.) Thus, Dolin's devices which transmit information to a network *sua sponte*, can not anticipate devices which either transmit or write information frames responsive to an address transmitted by a master device.

Further, claim 1 recites that only a **single** device includes one of the plurality of addresses associated with a transmission indicator, while Dolin discloses "allowing the same variable to be updated by several groups" (Col. 14, lines 31-36), indicating that each of these "several groups" are network nodes or groups of nodes which may be associated with some form of transmission indicator ("unsigned dir:1" in Col 14, line 53) for that variable.

In addition, claim 1 recites having the communication circuit of a device, in response to receiving an address that is associated with either a transmission or reception indicator, provide its processing unit with an identifier of an address. The Examiner points to Col. 14, line 37 – Col. 15, line 12 of Dolin as disclosing this, however it does not. The identifiers of Applicant's disclosure and those disclosed by Dolin are entirely different. Claim 1 recites that the identifiers are identifiers of an address, whereas the only things that might be considered "identifiers" in Dolin are the entries in the address table index 912 of the network variable table 902. However, these entries are not identifiers of addresses, but rather are indicators of a location of a destination node address in an address table 901. (Col. 13, lines 45-53.) Thus, the entries in Dolin's network variable index 902 cannot anticipate the identifiers recited in claim 1.

Further, even if the identifiers of claim 1 could be considered similar to the entries in the address table index 912 of Dolin, Dolin still can not anticipate claim 1's recitation of having the communication circuit of the device for which the address transmitted by the master device is associated with a transmission indicator transmit the information frame contained in the memory associated with the address and **provide its processing unit with an identifier of the address**, and having each communication circuit of a device for which the address transmitted by the master device is associated with a reception indicator write into the memory associated with the address of the information frame and **provide its processing unit with an identifier of the address**, because the entries in the address table index 912 of Dolin are never provided to any processing unit. As stated above, in Dolin, the values in the address table index 912 are used by a node to determine what other node or nodes to communicate changes in a network variable to. The values in the address table index 912 of Dolin, however, are never themselves sent to a processing unit upon writing or transmitting of an information frame. The network variable table 902 is simply used by a node to lookup where to send an updated variable and its new value. (Col. 13, lines 53-57.)

In fact, Dolin discloses that "only the output network variable nodes actually set their network variable entries to index the address table [901]. The nodes with input network variables will not index the address table." (Col. 14, lines 20-23.) Thus, Dolin's "input network variable nodes" are entirely incapable of writing into the memory associated with an address of an information frame and providing a processing unit with an identifier of the address, as recited in

claim 1 because for the Dolin's "input network variable nodes" do not even have values in address table index 912 to provide.

For at least the reasons above, withdrawal of the rejection of claim 1 under 35 U.S.C. §102(b) as anticipated by Dolin is respectfully requested.

Claim 2-6 depend either directly or indirectly from claim 1 and patently distinguish over Dolin for at least the same reasons as claim 1. Further, these claims patently distinguish over Dolin for a number of additional reasons.

For example, claim 2 recites that the processing units, **except for the processing unit of the master device**, can neither read nor modify the addresses and the transmission and/or reception indicators of the communication circuits to which they are connected. Dolin nowhere discloses, teaches, or suggests any node, let alone a master that may read or modify addresses or transmission and/or reception indicators of communication circuits to which they are connected and non-master nodes that cannot. The section of Dolin cited by the Examiner (Col. 14, lines 36-49) simply describes the structure of Dolin's network variable table 902 and does not describe any node that can modify this table. In fact, Dolin discloses that all communication connections between nodes are defined during initial configuration of the network (Col. 4, lines 54-59). This does not anticipate a processing unit of a master device which may read or modify the addresses and the transmission and/or reception indicators of the communication circuits to which it is connected and processing units of other devices which cannot.

Accordingly, withdrawal of the rejection of claims 2-6 under 35 U.S.C. §102(b) as anticipated by Dolin is respectfully requested.

Claim 7 recites a device capable **of transmitting to said processing unit an identifier of a register associated with said address** upon reception of a request received from the network and corresponding to one of said addresses, and, dependent upon the determined type of direction indicator associated with said address, of transmitting over the network the information frame stored in the register associated with said address in response to the corresponding direction indicator being a first determined type, and of writing an information frame received from the network into the register associated with said address in response to the corresponding direction indicator being a second determined type.

The reasons why Dolin can not anticipate a device capable of transmitting to a processing unit an identifier of a register associated with an address are similar to those discussed above with regard to the identifiers of claim 1. The identifiers of claim 7 and those disclosed by Dolin are entirely different. Claim 7 recites that the identifiers are identifiers of a register which stores an information frame and is associated with an address, whereas the only things that might be considered "identifiers" in Dolin are the entries in the address table index 912 of the network variable table 902. These entries are not identifiers of registers which store information frames and are associated with addresses, but rather are indicators of a location of a destination node address in an address table 901. (Col. 13, lines 45-53.) Thus, the entries in Dolin's network variable index 902 cannot anticipate the identifiers recited in claim 7.

The additional reasons discussed above as to why Dolin cannot anticipate the identifiers of addresses of claim 1 apply equally as well to why Dolin cannot anticipate the identifiers of registers associated with addresses of claim 7. First, Dolin cannot anticipate a device capable of transmitting to said processing unit an identifier of a register associated with an address upon reception of a request received from the network because the entries in the address table index 912 of Dolin are never provided to any processing unit. Second, Dolin's "input network variable nodes" are entirely incapable of writing an information frame received from the network into the register associated with said address, and of transmitting to a processing unit an identifier of the register associated with said address, as recited in claim 7, because Dolin's "input network variable nodes" do not even have values in address table index 912 to provide.

Accordingly, claim 7 patently distinguishes over Dolin and withdrawal of the rejection of claim 7 under 35 U.S.C. §102(b) as anticipated by Dolin is respectfully requested.

Claims 8 and 9 depend either directly or indirectly from claim 7 and patently distinguish over Dolin for at least the same reasons as claim 7. Accordingly, withdrawal of the rejection of claims 8 and 9 under 35 U.S.C. §102(b) as anticipated by Dolin is respectfully requested.

CONCLUSION

In view of the foregoing amendments and remarks, reconsideration is respectfully requested. This application should now be in condition for allowance; a notice to this effect is respectfully requested. If the Examiner believes, after this amendment, that the application is not in condition for allowance, the Examiner is requested to call the Applicant's attorney at the telephone number listed below.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicant hereby requests any necessary extension of time. If there is a fee occasioned by this response, including an extension fee, that is not covered by an enclosed check, please charge any deficiency to Deposit Account No. 50/2762.

Respectfully submitted,

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